BRA
924

BOSTON PUBLIC LIBRARY

New England Aquarium -
a report

Waterfront
R10
1967

SHOUT
SHARE
IT

ACCOPRESS®
GENUINE PRESSBOARD BINDER
CAT. NO. BG 2507
ACCO
CHICAGO.
LONDON.
OGDENSBURG, N. Y.
TORONTO.
MEXICO, D. F.

Property of
BOSTON REDEVELOPMENT AUTHORITY
Library

NEW ENGLAND AQUARIUM

A REPORT

BOSTON
PUBLIC
LIBRARY

THE NEW ENGLAND AQUARIUM

A REPORT

The New England Aquarium Corporation is an independent non-profit organization created in 1958 to establish, maintain and operate a public aquarium in the Metropolitan Boston area. Contributions made to this organization are tax deductible for federal tax purposes. The initial researching, designing and planning for the Aquarium has been completed, a nucleus staff has been hired and is at work, and the Aquarium has been allocated a site on the Boston waterfront by the Chamber of Commerce planning staff for waterfront redevelopment.

This report summarizes the purpose, scope, background and goals of the New England Aquarium, along with a discussion of the proposed location, construction costs and operating estimates. The total capital cost of the entire project is reliably estimated at $2,000,000.

Boston and its surrounding communities has long been noted as a scientific, cultural and educational center in this country. Yet there is one broad field of education which is today not available to the public: the challenge, the study and the enjoyment of the world of water around us. After many years of study, the New England Aquarium

Corporation proposes to establish a major public aquarium for Boston and the New England community.

The need for a modern, active aquarium is here; the plans for such an institution are being prepared. The New England Aquarium will become the finest in the world. Here is an opportunity to provide for this community a truly great educational and recreational facility for stimulating the minds of young and old.

THE NEW ENGLAND AQUARIUM: WHAT IT PROVIDES

The Aquarium will present living and museum exhibits. Live sharks, sea horses, porpoises and penguins will be maintained in the collection under conditions approaching those of nature. Co-ordinated with these living displays will be diagrammatic planned presentations on such subjects as animal behavior, water conservation and pollution, fishing industries, tidal mechanics and angling tips. There will be exhibits and programs to stimulate children, hobbyists, tourists, sports fishermen and students.

Behind the scenes, a research program will be provided; and, with the exceptional opportunities for availability of specimens and controlled water, qualified scientists will be able to further man's knowledge of the aquatic world and its inhabitants.

A Children's Aquarium section will present knowledge of the aquatic world to youngsters of all ages. This department will have peripheral live exhibits of aquatic animals that appeal to

children. Centrally featured will be a stage and seating arrangement where electric eels may be demonstrated, natural history films shown and from which lectures will be given.

Pools containing water that actually rises and falls will house the creatures found in New England tidal pools. Open to the public, this exhibit will permit visitors to handle the starfish, hermit crabs and other animals.

Common local fish and rare exotic fish will be shown in tanks whose sides present an optical illusion to the viewer of no sides at all--greatly strengthening the feeling of involvement in the aquatic world. Huge tanks will allow the visitor to view the animals from all sides.

A giant ocean tank will be a facility that will display the large creatures of the sea, such as porpoises and giant ocean turtles. Both look-in ports and a view from above the tank will be provided.

In addition to these and other exhibits and displays, the aquarium will provide areas for various functions and activities. During the evenings, areas will be made available for lectures, films or discussions for and by sportsmen, hobbyists, skindivers, conservationists and explorer groups. There will also be a larger area which perhaps will provide a novel setting for small conventions and animal meetings, capable of catering to several hundred participants.

Financial support for the Aquarium is being solicited from the following general areas, with the leadership of the Directors and the Planning and Finance Committee, supported by recommendations of fund raising counsel, and based upon firm Trustee support: Individuals, corporations, trusts and foundations, and the general public in the New England area. Efforts are intensifying to attract both individuals and organizations to the project for civic, educational and recreational reasons. In addition, certain organizations are working with the Aquarium to provide needed exhibits and research facilities, for mutual benefit to the organization, the Aquarium and the public as a whole. Support is being sought both for the capital program itself, as well as for contributions which will provide an incentive to other givers on a matching basis.

While it is anticipated that the greatest amount of dollar support will come from a relatively few sources, it is the Aquarium's belief that the project is of such importance to the community that the greater the public awareness and participation in the creating of this institution, the greater will be its effectiveness and acceptance as a public-service organization.

These and many other topics will increase public knowledge, the desire for learning, interest children and adults in the world of water around us. The New England Aquarium will made a most significant contribution to the educational and recreational needs of the community, and will, by its scope and intention, be an influential force on all thinking communities.

AQUARIUMS TODAY

Three quarters of the earth's surface is water. We humans depend on water for life and livelihood. Omnipresent water is fascinating but difficult to explore. The function of the New England Aquarium is to make known the world of water.

Evidence of the need of a public aquarium is the great popularity of this type of institution in other parts of the world. Over 400 public aquariums are in existence today. 33,000,000 attend these institutions annually. Experience has shown that an aquarium has an almost magnetic power to attract visitors both local and from afar, and that aquariums enjoy a far greater attendance than comparable institutions of similar size.

Over three million school children have passed through elementary school in this region since the old aquarium closed in 1954. They have not had the opportunities of children in other cities. Boston, with all its cultural and educational institutions, and with its rich heritage of maritime history, is today one of the only major cities without an aquarium.

Recent representative attendance figures of public aquariums are as follows: In Chicago, whose metropolitan population is 6,000,000, the aquarium had an attendance of 750,000. In San Francisco, a city of some 2,750,000, the aquarium entertained two million people. In Detroit, with 3,750,000 residents, over 1.5 million attended the aquarium. Vancouver's aquarium serves 400,000 people, with a population of 700,000. And in the Los Angeles area with six and one half million persons, over 1.5 million attended Marineland of the Pacific.

Metropolitan Boston's two and one half million persons today have no aquarium. This is the gap, which the New England Aquarium plans to fill.

THE BUILDING AND ITS SURROUNDINGS

The New England Aquarium Corporation is completing negotiations with the Boston Redevelopment Authority for a site in the Waterfront Area of Boston harbor. The new aquarium will be located on Long Wharf Plaza, at the foot of State Street overlooking Boston Harbor. At this site, rich in maritime history, visitors are minutes away from downtown Boston on foot, and are served by rapid transit at the Atlantic Station. The Central Artery expressway to the north and south passes 700 feet from the Aquarium.

The Aquarium will be a local educational and recreational center which will draw the New England and tourist public to the newly redeveloped waterfront. With a spectacular view of Boston,

William J. LeMessurier and Associates are currently at work on the Boston City Hall project, the New England States Pavilion for the World's Fair, Brandeis University Dormitories, 50 Pearl Street Building, Boston Federal Office Building and Harvard Medical School Library.

The association of these two firms provides us with an unusually strong group of architects, designers, structural and mechanical engineers fully competent for design and construction of our complex, original and practical institution.

The building itself will be of striking design to harmonize with the new buildings in the area. The interior will provide an exciting environment, capable of much flexibility in display techniques.

Present estimates call for the New England Aquarium to open its doors to the general public in 1965. Architectural designing is currently underway, construction should commence in 1964. The public will, by 1965, be able to participate in a new experience, surrounded by an aquatic environment.

THE PROPOSED BUILDING

The display plan for the building has been to present exhibits that (1) utilize fresh and salt water animals and their environment and (2) present the theme of man's relationship to the world of water. In filling these two exhibition policies, we also have to consider that the aim of educating must be tempered with some aspects of recreation.

Boston Harbor and Logan International Airport, the aquarium will also have the following facilities adjacent to it: parking garages, a marine motel, marine museum, restaurants, shops, cafes, excursion and charter boats.

The ease of access and location, so close to the center of the city, make the new site a most exciting area in which to place an aquarium.

To provide the most up-to-date aquarium possible, the architectural association retained for the Aquarium consists of the Cambridge Seven Associates, Inc., an outstanding group of young architects and designers from the Metropolitan Boston area, and William J. LeMessurier & Associates, Inc., consulting engineers in Boston, together doing business as New England Aquarium Architects & Engineers.

Of the Cambridge Seven group, three members have in the past several years been involved in the design and job captain level of $5.5 million construction projects at Phillips Academy and Brandeis University while associated with The Architects Collaborative. Two are design/architects with many awards. The remaining two partners are the principals of a design firm in New York - rated highly by their many clients in this country and abroad. Chermayeff and Geismar Associates are at present completing exhibits for the Commonwealth of Puerto Rico at the World's Fair at New York in 1965, and have recently been awarded the design of 80,000 sq.ft. of exhibits for the Department of Commerce in the U.S. Federal Pavilion.

Work unit areas have been devised so that there are foci of specific operations. This is an important consideration in reference to maintenance, efficiency and economy.

In a public aquarium the water is the all-important consideration. Thus, the filter system is thought of as the heart of the building. Most aquarium buildings have much work space devoted to filters. Our unique design has the filters as part of the display on the visitor floor.

BUILDING UNITS

Research Laboratory will be an integral and essential function of the building and will be in a separately operated area. This unit will provide valuable information for this and other aquariums, and be staffed by qualified research scientists on research grants, as at several other aquariums in this country.

Corporation Area contains offices, library, meeting rooms and facilities for maintaining the on-going activities of the institution. The meeting room can be available on a commercial basis for special affairs. There is a private entrance to this area and the whole aquarium.

Waterfall Exhibition will be a spectacular display seen on entering the building. An actual waterfall will drop forty feet through all exhibition floors into the main portion of the entrance lobby as a fascinating demonstration of the sight, sound and sense of water and the aquarium building itself. In this way, we will immediately establish the theme of the aquarium --

not merely a fish display, but a place to tell about the world of water. In addition to its aesthetic appeal, the waterfall tower has great practicality in that it will act as a filtering vehicle for some of the water systems of the aquarium.

Antarctic Exhibit will be a large show room with living penguins in their natural refrigerated environment showing the ability to swim underwater and jet jump on to ice flow. Correlated graphics will show the interelation of animals such as whale and krill and the influence of these animals on our New England communities.

Demonstration Show Tank is conceived as an underwater stage with mechanical facilities for easy placement of props and backgrounds. This can be rented for photographic (still, motion picture and TV) purposes while at the same time our visitors will receive a show with accompanying explanations. In the work area behind the demonstration show tank is a very large reserve water reservoir to enable us to change readily the water level of the show tank. Skin diving demonstrations can be given in this tank. This exhibit may be incorporated with either the lake tank or the giant ocean tank.

The Jewel Room contains fresh water tropical fishes and is slanted to the interests of the hobbyist/fancier. Questions about keeping and breeding are answered in this section. The tropical fish business is a multimillion dollar industry in the country and there are at least four national magazines devoted to it.

The Pure Science Laboratory is an actual demonstration of science in action. On display through one-way glass should be a compact, working laboratory with a researcher doing a project. The labels and signs on the visitor side should explain the project and give an account of its progress.

A Coral Reef using the latest exhibition techniques will be created in facsimile as the central feature of this area. We will then foil tanks of gaily colored salt water tropical fishes against this exhibit. In effect, this will be a salt water jewel room.

A Living Diorama is an area devoted to an actual presentation of an ecological niche using water, plants, and animals. We propose that we use a tropical swamp setting so that we can get in crocodiles, tropical birds, frogs, sloths, and similar things. Alternatively, this could be a salt water marsh or something equally appropriate. What we want to do in this section is transplant a natural setting of plants, water, and animals into the New England Aquarium.

The Lake Tank would be sort of a miniature fresh water ocean tank. We propose to put a large tank on the visitor floor which can be seen from all sides from portholes and/or viewing glasses. Depending on construction costs, this tank will be free-standing or dropping to the floor. There would be a look-down view and look-into view. We need something of this sort to show the larger fresh water fishes such as sturgeons and muskies.

Aquarium Tanks for holding aquatic animals. The large tanks on the salt water side are for animals up to sand shark size. One tank on the salt water side is a special set up for displaying octopus and requires special plumbing and refrigeration and reserve water. On both the salt and fresh water sides, there are a series of ten tanks for holding the common fishes, for giving methods of identification and for presenting "tips" for the fisherman.

Filter Pools - This unique installation will put a part of our filter system on display showing the public the internal workings of the building.

Diorama-instructional Exhibits - On various floors, there will be major and minor exhibitions of the kind that will provide interesting-fascinating background material to give the viewer supporting information about the world of water. Exhibits on "how-to-catch-a-fish", "living underwater", "water pollution", "water monsters", "what are tides", "prehistoric fishes","life cycle of schlippenschleider", etc., etc., are examples of the range of presentation that can be made.

Commercial Exhibit Frontage will be available to tie to the general theme of "Man and the Oceans".

Giant Ocean Tank Unit - Creatures of the sea will inhabit this important principle feature of the New England Aquarium. Dramatic animals such as porpoises, sharks and sea turtles will swim together in an environment of over 100,000 gallons of ocean water. Visitors will view this spectacular presentation

at both the surface and submarine levels. This exciting complex will be completed and complemented by instructional display dioramas, slides, motion pictures and a viewer's seating section for observing the many and varied presentations.

Additionally, the building will contain an attractive retail outlet for souvenirs, science objects and aquatic curios. There will be a restaurant area. This building will have facilities for meetings of various technical and professional groups, as well as for groups of sportsmen and hobbyists.

PROGRESS TO DATE

The New England Aquarium Corporation has, over an active period of two years, accomplished or set in motion the following activities for the development of the Aquarium:

With leadership provided by nine Directors composed of outstanding business and financial leaders, attracted a Board of Trustees of 36 individuals covering a broad range of interest and abilities.

Visited over 35 Aquariums in North America and Europe, consulting with directors, curators and techniques consultants.

Studied plans of over 42 Aquariums in the world.

Hired an outstanding Aquarium planner and director, together with a nucleus staff of experts, including planners, an exhibition designer and a research curator.

Planned and consulted with Boston's Chamber of Commerce and Redevelopment Authority with regards to design and site.

Hired an outstanding association of designers, architects and engineers, now at work on the design of the building.

Set up a continuing research survey of the Aquatic mammals of New England, and made a survey collecting and research trip to the upper Amazon.

Initiated a reciprocal animal trading program with the important aquariums of the country.

Established a public aquarium information committee composed of the curator-director of this institution and those in New York, San Francisco, St. Augustine, and Cleveland.

Prepared and made available over 1500 initial brochures and fact sheets, requested and received newspaper, radio and TV coverage and support. Surveyed trusts, funds, businesses and individuals to gather fund raising data. These have to date included conservationists, sportsmen, yachtsmen, civic-minded individuals, and figures in marine and water-oriented industries.

Raised sufficient operating funds to support the above activities.

Advanced an educational TV programming involving six one-half hour shows on a local commercial station.

Initiated and published a bi-monthly technical and informative professional journal AQUASPHERE, distributed at present in 25 states and 19 foreign countries.

The Aquarium should provide the following:

1. Stimulate the Desire to Learn: This educational institution will ask questions as well as provide answers.

2. Broaden Public Knowledge: The fast pace of space exploration should not obscure the fact that we must live on this earth, and knowledge of the aquatic world around us is increasingly important for our welfare and survival.

3. Re-establish a Vital Facility: Boston had one of the earliest and, for many years, the finest aquariums in the country. It is self-evident that a seaport city with a vast fishing industry needs again to have a major public aquarium.

4. Provide Awareness of our Fishing Heritage: Far too few persons in New England are today instructed in the tremendous importance of the fishing industry to the founding, growth, development and present importance of the seacoast of New England.

5. Provide Qualified Professionals: There is an urgent need for interesting the youth of this country in choosing the studies of oceanography, water control and water pollution, and becoming professional scientists in these fields. Within the Aquarium building, there will be excellent opportunities for initiating such studies.

6. Assist in Research: Co-operating with biological and medical scientists throughout the world, it will be a center for invaluable research in a multitude of fields. The Aquarium will be easily available to our many Boston hospitals, laboratories and universities, and will facilitate needed research.

7. Provide other Aquariums with Species: By means of expeditions and collecting trips, make available to other institutions animals not otherwise obtainable, particularly at West Coast and inland Aquariums. The interchange of species is a vitally important function of an aquarium, so that a larger segment of the world's population is exposed to the wonders of the aquatic world.

8. Provide a Source of Teaching Material: Well-exhibited and properly labeled exhibits provide a wealth of material for TV and motion picture presentations for the general public, and in audio-visual teaching departments of schools and universities.

9. Provide facilities for a wide range of professional and non-professional groups to come together to discuss topics relating to animals, conservation and the world of water.

HOW MUCH WILL IT COST?

The following figures represent estimates of the capital costs of the New England Aquarium, and give annual operating cost and income estimates. There is every reason to believe that operating cost will be met by operating revenues.

PROJECTED COSTS

Area Components	
Principal Halls	$ 250,000
Show Area, Antarctic Exhibit	200,000
Tropical, Coral Reef Exhibits	100,000
Tanks, Pure Science Lab, Lake Tank, Diorama	100,000
Exhibits, Commercial Gallery, Fishing	200,000
Waterfall & Entry Complex	300,000
Children's Aquarium	100,000
Research Laboratory	100,000
Reception Area	100,000
Fisherman Exhibits	50,000
Giant Ocean Tank	500,000
Total Estimated Capital Costs:	$2,000,000

NOTES

1. Representative attendance figures of public aquariums are as follows:

Marineland of the Pacific	1,460,000
Steinhart Aquarium (San Francisco)	2,200,000
Shedd Aquarium (Chicago)	750,000
Vancouver Public Aquarium	380,000
Fort Worth, Texas	450,000

2. New York Aquarium net profit 11.6¢ per person
Franklin Park Children's Zoo 3.5¢ per person

3. Museum of Science set precedence for this

4. In 1960, the New York Aquarium received $78,600 in research grants

5. Fishermen, Tropical Fish hobbyists, skin divers, etc., may rent facilities for meetings. Photographers, motion picture and TV people may rent stage tank for use.

PROJECTED INCOME

Aquarium Admissions (based on minimum attendance 400,000)	$200,000	(1)
Retail Profit from Aquarium Store	44,000	(2)
Total	$244,000	

Other Sources of Income

Possible M.D.C. School Aid	$70,000	(3)
Possible Research Grants	30,000	(4)
Rental Fees	3,500	(5)

PROJECTED OPERATING COSTS

Salaries	$132,000
Animals and Water (initial)	25,000
Equipment	12,000
Forage	10,000
Display	10,000
Maintenance	10,000
Utilities	10,000
Insurance, Accounting, Contingencies	10,000
Retail Stock	5,000
Supplies	3,000
Total	$227,000
Estimated Net Operating Profit	$ 17,000

NEW ENGLAND AQUARIUM CORPORATION

BOARD OF DIRECTORS & TRUSTEES - 1963

President:	David B. Stone, Vice President Hayden, Stone & Company
Vice Presidents:	Henry Lyman, Publisher Salt Water Sportsman
	Robert A. Lawrence State Street Research & Management Co.
Treasurer:	Weston Howland, Jr. Manufacturer
Assistant Treasurer:	Jacob F. Brown, II Hayden, Stone & Company
Secretary:	William H. MacCrellish, Jr., Partner Boyd, MacCrellish & Weeks

William S. Brewster, President
United Shoe Machinery Corporation

Alexander H. Bright, Limited Partner
Tucker, Anthony & R. L. Day

Stanley L. F. Chin, M.D.
Physician

Paul F. Hellmuth, Managing Partner
Hale and Dorr

NEW ENGLAND AQUARIUM CORPORATION

TRUSTEES

Charles B. Barnes	Hemenway & Barnes, Senior Partner
Gerald W. Blakeley, Jr.	Cabot, Cabot & Forbes Company, President & Trustee
Richard J. Borden	Borden Productions, Inc., President
Samuel Cabot, Jr.	Samuel Cabot, Inc., Treasurer & Director
Charles E. Cheever	First Boston Corporation, Assistant V.P.
Roger W. Converse	Realtor Consultant
Francis W. Davis	Consulting Engineer
Frederic C. Dumaine, Jr.	Amoskeag, President
Thomas A. Fulham	Fulham Brothers, Inc., Chmn. of the Board
Avram J. Goldberg	Stop & Shop, Incorporated, Vice President
Daniel S. Gregory	John P. Chase, Investment Advisor
William C. Hammond, Jr.	White, Weld & Company, Managing Partner
Weston Howland	Manufacturer
Albert B. Hunt	Rivett, Lathe & Grinder, President
G. Newell Hurd	Trustee
Thomas M. Joyce	Counsellor at Law
Elisha F. Lee	Lee Higginson Corporation
Ralph Lowell, Jr.	Merrill, Lynch, Pierce, Fenner & Smith
Robert J. MacMillan, M.D.	Physician
Frank J. Mather, III	Woods Hole Oceanographic Institution
Arthur G. Mitton, Jr.	Jordan Marsh Company
Francis W. Sargent	Division of Fisheries and Game, Director
William B. Snow	Trustee
Alan Steinert	The Eastern Company, President
Robert G. Stone	Trustee
Edward A. Taft, Jr.	New England Aquarium Corporation Executive Administrator
Irving Usen	Irving Usen Company, President
Webb B. White	A. C. Allyn & Company, Vice President

Hon. Benjamin A. Smith and Mr. Donald J. Hurley have accepted nomination to become Trustees.

BOSTON PUBLIC LIBRARY
3 9999 06314 939 5

R10 BRA 1
Waterfront
R10
BRA
NEW ENGLAND AQUARIUM
R10
BRA
NEW
DATE
ISSUED TO